

Appl. No. 10/044,365
 Amdt. dated June 27, 2003
 Reply to Office Action of March 27, 2003

PATENT

Amendments to the Specification:

Please replace the paragraph beginning at page 7, line 24, with the following rewritten paragraph:

A' --Reference resistor 151 may be an off-chip resistor that is coupled to a pin of the integrated circuit. Resistor 151 may be a precision resistor. Transistor 102 is an on-chip transistor. The ON resistance (R_{DS}) of on-chip transistor ~~151~~ 102 varies with the temperature of the integrated circuit, the process techniques used to fabricate the integrated circuit, and variations in the supply voltage V_{CC} and voltage source V_D .--

Please replace equation 1 on page 7, with the following rewritten equation:

A² --
$$V_x = V_{CC} \frac{R_{DS}}{R_{DS} + R_{\text{tot } 151}} \quad (1)--$$

Please replace the paragraph beginning at page 9, line 11, with the following rewritten paragraph:

A³ --Digital encoder 104 includes a plurality of logic gates including inverters, NOR gates, and NAND gates, which determine the value of the binary code on bus line 161. The four bit binary code at signal line 161 has sixteen different states. Fifteen of the sixteen possible states are indicative of unique values for signals V_{X1} - V_{X15} . The binary code 0000 is not used, because it would cause all of transistors 106-109 to be OFF.--